LIPOSOME COMPOSITIONS AND METHODS FOR THE TREATMENT OF ATHEROSCLEROSIS

This application is a continuation of 09/322,336 filed on 5-28-1999, now 6,312,719 which is a continuation of 09/175,553 filed on 10-20-1998, now 6,139,871 which is a continuation of 08/507,170 filed on 7-26-1995 which is abn., which is a continuation of 08/206,495 filed on 3-4-1994 now abn.

BACKGROUND OF THE INVENTION

The present invention provides pharmaceutical compositions and methods useful for the treatment of atherosclerosis. More particularly, the compositions generally comprise liposomes having an average diameter of about 100-150 nanometers and a pharmaceutically acceptable carrier. The methods generally comprise administering such compositions.

Atherosclerosis is the leading cause of death in the United States. Atherosclerosis is the formation of plaques in arterial walls that can occlude the vessel lumen and obstruct blood flow through the vessel. Morbidity and mortality generally occur through end organ damage and organ dysfunction resulting from ischemia. The most common forms of ischemic end organ damage are myocardial infarction and cerebrovascular accidents. Disability or death often result from these vascular events. Even atherosclerosis-related ischemia that does not permanently injure myocardium is responsible for significant morbidity in the form of angina pectoris and congestive heart failure. Other organs, such as the kidneys, the intestines, and the spinal cord, may also be injured by atherosclerotic occlusions. Further, in diseases such as aortic aneurysms, atherosclerotic arteries may cause clinical symptoms independent of end organ dysfunction.

Arteriosclerotic lesions are plaques that form by accumulation of cholesterol, cholesterol esters, and phospholipids and proliferation of smooth muscle cells in the intima of major arteries. Lipid contributes a major portion of the plaque volume (generally 30-65% dry weight). Small, Arteriosclerosis, 8:103-129 (1988). In fact, the risk of